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959 7590 02/23/2007 LAHIVE & COCKFIELD, LLP ONE POST OFFICE SQUARE BOSTON, MA 02109-2127			EXAMINER VERDI, KIMBLEANN C	
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SHORTENED STATUTORY PERIOD OF RESPONSE	MAIL DATE	DELIVERY MODE
3 MONTHS	02/23/2007	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

Office Action Summary

Application No.

10/671,703

Applicant(s)

DEAN ET AL.

Examiner

Kacy Verdi

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 09 September 2003.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-44 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-44 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 9 September 2003 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- ☒ Notice of References Cited (PTO-892)
- ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- ☒ Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date 22 October 2004.
- ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.
- ☐ Notice of Informal Patent Application
- ☐ Other: _____.

DETAILED ACTION

This office action is in response to the Application filed on September 26, 2003. Claims 1-44 are pending in the current application.

Drawings

1. The drawings are objected to because ImaqFrame, reference character 540, Fig. 5, is referred to Data Object 540, Fig. 5 in the specification, beginning on page 10, lines 3-11, and throughout the rest of the specification. Examiner suggests renaming ImaqFrame 540, Fig. 5 to Data Object. Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. The figure or figure number of an amended drawing should not be labeled as "amended." If a drawing figure is to be canceled, the appropriate figure must be removed from the replacement sheet, and where necessary, the remaining figures must be renumbered and appropriate changes made to the brief description of the several views of the drawings for consistency. Additional replacement sheets may be necessary to show the renumbering of the remaining figures. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either "Replacement Sheet" or "New Sheet" pursuant to 37 CFR 1.121(d). If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

2. The drawings are objected to as failing to comply with 37 CFR 1.84(p)(5) because they do not include the following reference sign(s) mentioned in the description:

- a. step "Data Object posted to Data Sever Object", fig. 9, which is disclosed on page 12, line 33, as reference character 980, requires a reference number;
- b. step "Data Sink Objects Registered", fig. 9, which is disclosed on page 13, line 1, as reference character 981, requires a reference number;
- c. step "Data Object deleted", fig. 9, which is disclosed on page 13, line 1, as reference character 982, requires a reference number;
- d. step "Data Object instructed to increment its Data Sink Counter", fig. 9, which is disclosed on page 13, line 3, as reference character 983, requires a reference number;
- e. step "Data Object identification information provided to each to Data Sink Object", fig. 9, which is disclosed on page 13, lines 3-4, as reference character 984, requires a reference number;
- f. step "Data Sink Object accesses Data Object", fig. 9, which is disclosed on page 13, lines 4-6, as reference character 985, requires a reference number;
- g. step "When Data Sink Object no longer needs Data Object, Data Object is instructed to decrement the Data Sink counter", fig. 9, which is disclosed on page 13, lines 6-7, as reference character 986, requires a reference number;
- h. step "Counter = Zero", fig. 9, which is disclosed on page 13, lines 7-8, as reference character 987, requires a reference number; and

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i. step "Deleting the Data Object or storing it Separately", fig. 9, which is disclosed on page 13, lines 8-9, as reference character 988, requires a reference number. Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either "Replacement Sheet" or "New Sheet" pursuant to 37 CFR 1.121(d). If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

Specification

3. Applicant is reminded of the proper language and format for an abstract of the disclosure.

The abstract should be in narrative form and generally limited to a single paragraph on a separate sheet within the range of 50 to 150 words. It is important that the abstract not exceed 150 words in length since the space provided for the abstract on the computer tape used by the printer is limited. The form and legal phraseology often used in patent claims, such as "means" and "said," should be avoided. The abstract should describe the disclosure sufficiently to assist readers in deciding whether there is a need for consulting the full patent text for details.

The language should be clear and concise and should not repeat information given in the title. It should avoid using phrases which can be implied, such as, "The disclosure concerns," "The disclosure defined by this invention," "The disclosure describes," etc.

4. The abstract of the disclosure is objected to because lines 1-2 recite "...is disclosed" which contains implied phrasing, examiner suggests removing the phrase "is disclosed" from lines 1-2. Correction is required. See MPEP § 608.01(b).
5. The disclosure is objected to because of the following informalities:
 - a. page 10, line 6 recites "Data Object", which does not include a reference to "Data Object" 540, Fig. 5, examiner suggests including a reference to reference character 540;
 - b. on page 10, line 32, recites "...posted to the data server..." referenced as "step 730", which appears to reference "Posting the Data Object to a Data Server Object" 750, Fig. 7, examiner suggests modifying line 32 to reference step 750; and
 - c. page 13, line 7 recites "...object is instructed to decrement the data sink object", which appears to reference "When Data Sink Object no longer needs Data Object, Data Object is instructed to decrement the Data Sink counter" 986, Fig. 9, examiner suggests modifying line 7 to recite "object is instructed to decrement the data sink counter". Appropriate correction is required.
6. The specification is objected to as failing to provide proper antecedent basis for the claimed subject matter. See 37 CFR 1.75(d)(1) and MPEP § 608.01(o). Correction of the following is required: claims 17 and 31 refer to configuring a maximum amount of memory that all data objects uses at a given instance of time, however the specification does not disclose the maximum amount of memory configured.

Claim Objections

7. Claim 36 is objected to because of the following informalities: dependent claim 36 should begin with "The medium of claim 34 " as it appears to refer to "A computer readable medium" of independent claim 34. Appropriate correction is required.

Claim Rejections - 35 USC § 101

8. 35 U.S.C. 101 reads as follows:

Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

9. Claims 1-44 are rejected under 35 U.S.C. 101 because the claimed invention is directed to non-statutory subject matter.

With respect to claims 1-18, a "method for transferring data from a data source that produces the data to multiple data sink objects " is being recited; however, it appears that a method for transferring data from a data source would reasonably be interpreted by one of ordinary skill in the art as software, per se. A method for transferring data from a data source that produces the data to multiple data sink objects as claimed does not set forth a practical application of the invention or produce a tangible result. As such, it is believed that a method for transferring data from a data source that produces the data to multiple data sink objects of claims 1-18 is reasonably interpreted as functional descriptive material, per se.

With respect to claims 19-33, a "data transfer system for transferring data from a data source to multiple data sink objects" is being recited; however, it appears that a data transfer system for transferring data from a data source to multiple data sink

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objects would reasonably be interpreted by one of ordinary skill in the art as software, per se. A data transfer system for transferring data from a data source to multiple data sink objects as claimed does not set forth a practical application of the invention or produce a tangible result. As such, it is believed that a data transfer system for transferring data from a data source to multiple data sink objects of claims 19-33 is reasonably interpreted as functional descriptive material, per se.

With respect to claims 34-44, a "computer readable medium holding instructions" is being recited; however, it appears that the computer readable medium holding instructions would reasonably be interpreted by one of ordinary skill in the art as software, per se. The computer readable medium holding instructions as claimed does not set forth a practical application of the invention and does not make use of memory or computer storage media to produce a tangible result. As such, it is believed that the computer readable medium holding instructions of claims 34-44 is reasonably interpreted as functional descriptive material, per se.

Claim Rejections - 35 USC § 102

10. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

11. Claims 1, 2, 4-7, 10-11, and 16-18, rejected under 35 U.S.C. 102(b) as being anticipated by U.S. Patent 6,256,625 B1 to Breyer et al. (hereinafter Breyer).

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12. As to claim 1, Breyer teaches in a computer system, a method for transferring data from a data source that produces the data to multiple data sink objects that process the data in the computer system, the method comprising:

receiving the data from the data source (step 404, Fig. 7);
encapsulating the data into a data object in a memory (step 406, Fig. 7); and
providing to the multiple data sink objects identification information identifying the data object (step 408, Fig. 7), wherein the multiple data sink objects access the data object using the identification information and share the data object with other data sink objects to prevent extraneous copies of the data (IDispatch Interface, col. 7, lines 64-67 and col. 8, lines 1-2).

13. As to claim 2, Breyer teaches the method of claim 1 wherein the step of receiving comprises the step of receiving the data from image acquisition devices (step 404, Fig. 7).

14. As to claim 4, Breyer teaches the method of claim 1 wherein the data received from data source includes multimedia data (image/video data, col. 6, lines 60-64).

15. As to claim 5, Breyer teaches the method of claim 1 wherein the computer system provides a technical computing environment (video capture system, col. 2, lines 23-33).

16. As to claim 6, Breyer teaches the method of claim 1 wherein the data sink object performs a function of previewing the data encapsulated in the data object (col. 3, lines 14-16).

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17. As to claim 7, Breyer teaches the method of claim 1 wherein the data sink object performs a function of logging the data encapsulated in the data object to the memory (col. 6, lines 64-67 and col. 7, lines 1-2).

18. As to claim 10, Breyer teaches the method of claim 1 wherein the data sink object performs a function of logging a single data sample/frame to the memory (image data captured as frames transfer to memory, col. 4, lines 31-34).

19. As to claim 11, Breyer teaches the method of claim 1 wherein the step of providing identification information includes the step of providing to the multiple data sink objects a pointer indicating the location of the data object in the memory (IDispatch Interface, col. 7, lines 64-67, col. 8, lines 1-2).

20. As to claim 16, Breyer teaches the method of claim 1 wherein the step of encapsulating comprises allocating the memory to the data automatically (col. 6, lines 64-67 and col. 7, lines 1-2).

21. As to claim 17, Breyer teaches the method of claim 1 wherein the step of encapsulating comprises configuring a maximum amount of memory that all data objects uses at a given instance of time (col. 6, lines 64-67 and col. 7, lines 1-2).

22. As to claim 18, Breyer teaches the method of claim 1 wherein the steps of receiving, encapsulating and providing are performed independently of MATLAB (image application, col. 6, lines 51-54).

Claim Rejections - 35 USC § 103

23. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

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(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

24. Claims 3 and 8-9, 19-22, 27-29, 31, 33-34, 36, and 42-43 are rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. Patent 6,256,625 B1 to Breyer et al. (hereinafter Breyer) in view of U.S. Patent 5,692,157 to Williams.

25. As to claim 3, Breyer does not teach the method of claim 1 wherein the data received from data source includes financial data.

However, Williams teaches the method of claim 1 wherein the data received from data source includes financial data (budgeting data, col. 3, lines 65-67 and col. 4, lines 1-5).

It would have been obvious to a person of ordinary skill in the art at the time the invention was made to modify the invention of Breyer to include the feature of the method of claim 1 wherein the data received from data source includes financial data (budgeting data, col. 3, lines 65-67 and col. 4, lines 1-5) as taught by Williams because this provides a mechanism for object linking and embedding functionality with an implementation-independent Application Programming Interface (API) (col. 4, lines 30-32).

26. As to claim 8, Breyer as modified by Williams teaches the method of claim 1 wherein the data sink object performs a function of logging the data encapsulated in the data object to a textual file (col. 10, lines 64-67 and col. 11, lines 1-5 of Williams).

27. As to claim 9, Breyer as modified by Williams teaches the method of claim 1 wherein the data sink object performs a function of logging the data encapsulated in the data object to a binary file (col. 10, lines 55-60 of Williams).

28. As to claim 19, Breyer teaches the invention substantially as claimed including a data transfer system for transferring data from a data source to multiple data sink objects in a computer system, wherein the data source is coupled to the computer, the system comprising:

an interface for communicating with the data source to receive the data from the data source (IMAQ Control Object, Fig. 5, col. 2, lines 35-36);

a data processor for encapsulating the data into a data object in the memory (CPU 202, Fig. 2); and

wherein the multiple data sink objects access the data object using the identification information and share the data object with other data sink objects to prevent extraneous copies of the data (IDispatch Interface, col. 7, lines 64-67 and col. 8, lines 1-2).

Although Breyer teaches the invention substantially, Breyer does not specifically disclose a data server for providing to the multiple data sink objects identification information identifying the data object.

However, Williams teaches a data server for providing to the multiple data sink objects identification information identifying the data object (persistent registry 514, Fig. 5, col. 6, lines 32-41).

It would have been obvious to a person of ordinary skill in the art at the time the invention was made to modify the invention of Breyer to include the feature of a data server for providing to the multiple data sink objects identification information identifying the data object (persistent registry 514, Fig. 5, col. 6, lines 32-41) as taught by Williams because this provides a mechanism for object linking and embedding functionality with an implementation-independent Application Programming Interface (API) (col. 4, lines 30-32).

29. As to claim 20, Breyer as modified by Williams teaches the system of claim 19 wherein the data server includes a list listing the multiple data sink objects that are registered with the data server (registry is a database which lists objects in table, col. 6, lines 35-41 of Williams).

30. As to claim 21, Breyer as modified by Williams teaches the method of claim 19 wherein the computer system provides a technical computing environment (video capture system, col. 2, lines 23-33 of Breyer).

31. As to claim 22, Breyer as modified by Williams teaches the system of claim 19 wherein the data server provides a pointer indicating the location of the data object in the memory to identify the data object (IDispatch Interface, col. 7, lines 64-67 and col. 8, lines 1-2 of Breyer).

32. As to claim 27, Breyer as modified by Williams teaches the system of claim 19 wherein the data source provides data sequence continuously for a period of time (sequence of image data, col. 4, line 37 of Breyer).

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33. As to claim 28, Breyer as modified by Williams teaches the system of claim 19 wherein the data source provides a package of data, the package of data being used independently of other packages of data (compressed data, col. 4, line 37 of Breyer).

34. As to claim 29, Breyer as modified by Williams teaches the system of claim 28 wherein the package of data includes a frame of image data (video frame, col. 4, lines 31-37 of Breyer).

35. As to claim 31, Breyer as modified by Williams teaches the system of claim 19 wherein the data processor configures a maximum amount of memory that all data objects uses at a given instance of time (col. 6, lines 64-67, col. 7, lines 1-2 of Breyer).

36. As to claim 33, Breyer as modified by Williams teaches the system of claim 19 wherein the interface, the data processor, and the data server are implemented independently of MATLAB (image application, col. 6, lines 51-54 of Breyer).

37. As to claim 34, Breyer teaches the invention substantially as claimed including a computer readable medium holding instructions executable in a computer system, wherein the computer system receives data from a data source and transfers the data to data sink objects, comprising:

communicating with the data source to receive the data from the data source (step 404, Fig. 7);

encapsulating the data into a data object in the memory (step 406, Fig. 7); and

wherein the data sink objects access the data object using the identification information and share the data object with other data sink objects to prevent extraneous copies of the data (step 408, Fig. 7).

Although Breyer teaches the invention substantially, Breyer does not specifically disclose a data server object providing to the data sink objects identification information identifying the data object.

However, Williams teaches a data server object providing to the data sink objects identification information identifying the data object (persistent registry 514, Fig. 5, col. 6, lines 32-41).

It would have been obvious to a person of ordinary skill in the art at the time the invention was made to modify the invention of Breyer to include the feature of a data server object providing to the data sink objects identification information identifying the data object (persistent registry 514, Fig. 5, col. 6, lines 32-41) as taught by Williams because this provides a mechanism for object linking and embedding functionality with an implementation-independent Application Programming Interface (API) (col. 4, lines 30-32).

38. As to claim 36, Breyer as modified by Williams teaches the method of claim 34 wherein the computer system provides a technical computing environment (video capture system, col. 2, lines 23-33 of Breyer).

39. As to claim 42, Breyer as modified by Williams teaches the medium of claim 34 wherein the instructions are run independently of MATLAB (image application, col. 6, lines 51-59 of Breyer).

40. As to claim 43, Breyer as modified by Williams teaches the medium of claim 34 wherein the instructions are originated from code written with C programming language (col. 11, line 41 of Breyer).

41. Claims 12-15 are rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. Patent 6,256,625 B1 to Breyer et al. (hereinafter Breyer) in view of U.S. Patent 5,986,667 to Jevans.

42. As to claim 12, Breyer does not teach the method of claim 1 further providing a counter-for counting a number of the multiple data sink objects that are provided with the identification information of the data object.

However, Jevans teaches the method of claim 1 further providing a counter-for counting a number of the multiple data sink objects that are provided with the identification information of the data object (reference count 714, Fig. 7, col. 16, lines 39-40).

It would have been obvious to a person of ordinary skill in the art at the time the invention was made to modify the invention of Breyer to include the feature of the method of claim 1 further providing a counter-for counting a number of the multiple data sink objects that are provided with the identification information of the data object (reference count 714, Fig. 7, col. 16, lines 39-40) as taught by Jevans because this provides a mechanism which allows retained-mode building and editing of a model, independently of the choice of renderer in a graphics rendering system (col. 5, lines 57-60)

43. As to claim 13, Breyer as modified by Jevans teaches the method of claim 12 wherein the counter is automatically decreased by the multiple data sink objects when the multiple data sink objects no longer need to access the data object (reference count 714, Fig. 7, col. 16, lines 39-40 of Jevans).

44. As to claim 14, Breyer as modified by Jevans teaches the method of claim 13 wherein if the counter is decreased to zero, the data object is deleted automatically from the memory (col. 27, lines 37-40 of Jevans).

45. As to claim 15, Breyer as modified by Jevans teaches the method of claim 13 wherein if the counter is decreased to zero, the data object is stored persistently and separately in the memory (col. 6, lines 64-67, col. 7, lines 1-2 of Breyer and col. 27, lines 29-34 of Jevans).

46. Claims 23-26 are rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. Patent 6,256,625 B1 to Breyer, as modified by U.S. Patent 5,692,157 to Williams, as applied to claim 19 above, and further in view of U.S. Patent 5,986,667 to Jevans.

47. As to claim 23, Breyer as modified by Williams does not teach the system of claim 19 further comprising one or more data listener object that is registered to the multiple data sink object.

However, Jevans teaches the system of claim 19 further comprising one or more data listener object that is registered to the multiple data sink object (Registering a renderer, col. 11, lines 40-55).

It would have been obvious to a person of ordinary skill in the art at the time the invention was made to modify the invention of Breyer as modified by Williams to include the feature of the system of claim 19 further comprising one or more data listener object that is registered to the multiple data sink object (Registering a renderer, col. 11, lines

40-55) as taught by Jevans because this provides a mechanism which allows retained-mode building and editing of a model, independently of the choice of renderer in a graphics rendering system (col. 5, lines 57-60).

48. As to claim 24, Breyer as modified by Williams and Jevans teaches the system of claim 23 wherein the data sink object deletes all data listener objects registered with the data sink object when the data sink object is deleted (object delete function, lines 40-55 of Jevans).

49. As to claim 25, Breyer as modified by Williams and Jevans teaches the system of claim 23 wherein the data sink object notify the data listener when state of the data sink object changes (ErWF_Register:TypeChangedMethod, col. 11, lines 45-67, col. 12, lines 1-20 of Jevans).

50. As to claim 26, Breyer as modified by Williams and Jevans teaches the system of claim 23 wherein the data sink object notify the data listener when the data sink object is updated with a new data object (ErWF_Register:AttributeSetChangedMethod, col. 11, lines 45-67, col. 12, lines 1-20 of Jevans).

51. Claims 30 and 32 are rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. Patent 6,256,625 B1 to Breyer, as modified by U.S. Patent 5,692,157 to Williams, as applied to claims 19 and 28 above, and further in view of U.S. Patent Application Publication 2003/0041163 A1 to Rhoades et al. (hereinafter Rhoades).

52. As to claim 30, Breyer as modified by Williams does not teach the system of claim 28 wherein the package of data includes a scan of radar, sensor, or audio data, as well as network data packets.

However, Rhoades teaches the system of claim 28 wherein the package of data includes a scan of radar, sensor, or audio data, as well as network data packets (paragraph 0127).

It would have been obvious to a person of ordinary skill in the art at the time the invention was made to modify the invention of Breyer as modified by Williams to include the feature of the system of claim 28 wherein the package of data includes a scan of radar, sensor, or audio data, as well as network data packets (paragraph 0127) as taught by Rhoades because this provides a new processor architecture that is suitable, specifically but not exclusively, for Data Flow processing problems (paragraph 0010).

53. As to claim 32, Breyer as modified by Williams and Rhoades teaches the system of claim 19 further comprising a processor for controlling the interface; the data processor, and the data server, wherein the processor is 64 bits or more (ALU of processor, paragraph 0088 of Rhoades).

54. Claims 35, 37-41 are rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. Patent 6,256,625 B1 to Breyer, as modified by U.S. Patent 5,692,157 to Williams, as applied to claim 34 above, and further in view of U.S. Patent 6,823,524 B1 to Hewett.

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55. As to claim 35, Breyer as modified by Williams does not teach the medium of claim 34 further comprising a data sink listener object that is registered with one or more of the data sink objects.

However, Hewett teaches the medium of claim 34 further comprising a data sink listener object that is registered with one or more of the data sink objects (event generator object (A) 30, Fig. 5, event listener object (B) 32, Fig. 5, col. 4, lines 27-30, and step 64, Fig. 6, col. 4, lines 61-64).

It would have been obvious to a person of ordinary skill in the art at the time the invention was made to modify the invention of Breyer as modified by Williams to include the medium of claim 34 further comprising a data sink listener object that is registered with one or more of the data sink objects (event generator object (A) 30, Fig. 5, event listener object (B) 32, Fig. 5, col. 4, lines 27-30, and step 64, Fig. 6, col. 4, lines 61-64) as taught by Hewett because this provides a mechanism for a object-oriented data processing system which uses events to pass control from an event generator object to a listener object (col. 1, lines 21-25).

56. As to claim 37, Breyer as modified by Williams and Hewett teaches the medium of claim 35 wherein the data sink listener object performs a task relating to a function of the data sink object (object B can receive and execute event E1, col. 4, lines 3-9 of Hewett).

57. As to claim 38, Breyer as modified by Williams and Hewett teaches the medium of claim 35 wherein the data sink listener object performs a task relating to a function of

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the data sink object on a thread of the data server object (run on common thread, col. 4, lines 24-25 of Hewett).

58. As to claim 39, Breyer as modified by Williams and Hewett teaches the medium of claim 35 wherein the data sink listener object performs a task relating to a function of the data sink object on a thread different from that of the data server object (NLS objects run on separate threads 46, 50, Fig. 5, col. 4, lines 40-45 and step 86, Fig. 7 of Hewett).

59. As to claim 40, Breyer as modified by Williams and Hewett teaches the medium of claim 34 wherein the data sink object perform a function on a thread of the data server object (step 82, Fig. 7 of Hewett).

60. As to claim 41, Breyer as modified by Williams and Hewett teaches the medium of claim 34 wherein the data sink object perform a function on a thread different from that of the data server object (event generator object passes event objects in separate threads, col. 4, lines 50-53 of Hewett).

61. Claims 44 is rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. Patent 6,256,625 B1 to Breyer, as modified by U.S. Patent 5,692,157 to Williams, as applied to claim 34 above, and further in view of "C# and the .Net Framework: The C++ Perspective" by Powell et al. (hereinafter Powell).

62. As to claim 44, Breyer as modified by Williams does not teach the medium of claim 34 wherein the instructions are originated from code written with an object-oriented programming language such as C++, C# and Java.

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However, Powell teaches the medium of claim 34 wherein the instructions are originated from code written with an object-oriented programming language such as C++, C# and Java (Part II, Chapter 2.1.C# Basics, lines 3-4).

It would have been obvious to a person of ordinary skill in the art at the time the invention was made to modify the invention of Breyer as modified by Williams to include the medium of claim 34 wherein the instructions are originated from code written with an object-oriented programming language such as C++, C# and Java (Part II, Chapter 2.1. C# Basics, lines 3-4) as taught by Powell because this provides a modern object-oriented language that was designed for the expressiveness of C++ with RAD style development and the design and evolution of C# was influenced by such languages as C++, SmallTalk, Java and other OO languages (Part II, Chapter 2.1.C# Basics, lines 1-4).

Conclusion

63. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

U.S. Patent 5,437,027 discloses a system and method for database management for providing support for long-term storage and retrieval of objects created by application programs written at least in part in object-oriented programming languages consists of a plurality of software modules.

U.S. Patent 5,881,230 discloses an object oriented programming environment is extended to allow a client object oriented application running under a client/server

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operating system to communicate with a plurality of server object oriented applications located on one or more remote computers in a distributed computer environment.

U.S. Patent 6,078,927 discloses an information platform which automates the collection of data, provides a method for organizing the library of information and provides analysis using multiple content-types, thereby providing a user with a market understanding necessary to execute rapid and knowledgeable decision making.

U.S. Patent 6,134,583 discloses a procedure for obtaining a copy of a data object.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Kacy Verdi whose telephone number is (571) 270-1654. The examiner can normally be reached on Monday-Friday 7:30am-5:00pm EST..

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Xiao Wu can be reached on (571) 272-7761. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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KV
February 15, 2007


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